

Application No. 09/475,721

19. The medical device of claim 10 wherein the flexible composite component can be bent about 60 degrees for about 400 million cycles without significant structural failure.

20. The medical device of claim 10 wherein the composite further comprises a diamond-like carbon coating over at least a portion of the polymer.

31. The medical device of claim 1 wherein the polymer is crosslinked.

REMARKS

Claims 1-3, 5-20, and 31 are pending. Claim 5 has been amended to recite an alternative list of polymers. The amendment of claim 5 is supported by the specification, for example, at page 18, lines 22-25. No new matter is introduced by the amendment.

All of the pending claims stand rejected. Applicants respectfully request reconsideration of the rejections based on the following comments. Applicants incorporate by reference remarks from the Amendment After Final of April 10, 2002. To avoid repeating arguments in the Amendment After Final of April 10, 2002, Applicants refer specifically to points 2-4 raised in the Advisory Action of April 24, 2002.

2. With respect to point 2, the Examiner's concerns about the term "rigid" are based on a misunderstanding. In particular, claim 1 does not indicate that the composite is flexible. Claim 1 recites a rigid polymer forming a substantially different structure from the substrate. For example, the stent in Figs. 5A, 5B and 5D include rigid polymer extensions that form a substantially different structure from the substrate.

Claim 10, and not claim 1, indicates that the composite is flexible. Claim 10 does not recite a rigid polymer. In particular, leaflets of Figs. 3 and 4 generally comprise a flexible composite.

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In view of these distinctions, Applicants do not believe that there are any inconsistencies.

3. With respect to these remarks, Applicants note that claim 12 depends from claim 10 and not from claim 1. Therefore, the polymers listed in claim 12 are flexible polymers, consistent with the scope of claim 10. However, claim 5 recites specific polymers for the embodiments of claim 1. Applicants have amended claim 5 to delete several polymers, including polyurethanes and polytetrafluoroethylenes. While the broad classes of polymers covered by polyurethanes and polytetrafluoroethylenes can include both flexible and rigid polymers, these classes generally are not preferred rigid polymers, as noted in the specification at page 18, lines 22-25. While not necessary for patentability, claim 5 has been amended to recite a more commercially relevant group of rigid polymers. Applicants maintain that the term rigid is clear and definite in claim 1.

4. The Examiner is combining features of flexible and rigid elements from Applicants' claims, even though they relate to different claims. With respect to claim 1, flexibility is not at issue since the claim does not indicate that any portion of the structure is flexible. With respect to independent claim 10, the degree of flexibility of the composite is specifically recited with respect to bending, see claim 10 above. Certainly, the support ring of the Pietsch patent cannot be bent by 100 degrees while remaining elastic.

Applicants request that the Examiner call Applicants' undersigned representative if there are remaining issues regarding the terminology or distinctions with the Pietsch disclosure.

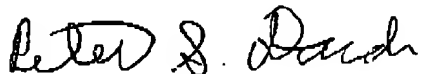
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CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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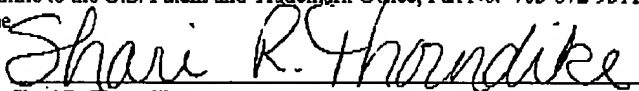
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Please grant any extension of time necessary for entry; charge any fee due to Deposit Account No. 16-0631.

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office, Fax No. 703-872-9311 on the date shown below thereby constituting filing of same.

May 13, 2002
Date


Shari R. Thorndike

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ATTACHMENT
MARKED-UP AMENDMENT

Claims As Amended

Claim 5 has been amended as follows:

5. (Amended) The medical device of claim 1 wherein the polymer is selected from the group consisting of polyetheretherketones, polyacetals, polyethersulfones, polyarylsulfones, polyetherimides, [polyamides, polypropylenes, polyurethanes, polytetrafluoroethylenes, polyester teraphthalates,] polycarbonates, and polysulfones.